UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,391	02/04/2004	Bjorn J. Gruenwald	072257-0311934	2749

909   7590   04/14/2008

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ART UNIT	PAPER NUMBER
2626	

MAIL DATE	DELIVERY MODE
04/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/770,391	GRUENWALD, BJORN J.
	Examiner	Art Unit	
	GINA W. LEE	2626	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 January 2008</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-12</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>05 September 2007, 28 January 2008 (2)</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In response to the office action from 7/27/2007, Applicant has submitted an amendment,

filed 1/28/2008, amending claims 1-5 and 9-12, and arguing to traverse the art rejection based on

the limitation of the step of converting language content into a numeric representation of the

content. The Applicant's arguments have been fully considered, but they are moot in view of the

new grounds of rejection and do not place the claims in condition for allowance.

Change of Art Units

2.   Please note that the examiner has changed art units, which was formerly 2609. The

examiner's new art unit is 2626.

Response to Arguments

3.   Applicant's arguments with respect to claims 1-12 have been considered but are moot in

view of the new ground(s) of rejection.

Specification

4.   The disclosure is objected to because of the following informalities: The title of the

Provisional Application from which the Application claims priority is incorrect. "System and

Method for Translating Languages Using an Intermediate Contact Space" should be corrected to

read "System and Method for Translating Languages Using an Intermediate *Content* Space".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tolin et al.

(US 5,490,061) in view of Unger et al. (US 5,991,713).

7.   With respect to independent **claim 1**, Tolin teaches a method for translating

content in a first language into corresponding content expressed

in a second language comprising:

*   transforming the content included in the language stream

        expressed in the first language into intermediate content in

        a content space *(Figs. 1, 3, and 4; columns 5-6, file is translated from original*

        language to artificial language); and

*   transforming said intermediate content in the content space

        into the corresponding content expressed in the second

        language *(Figs. 1, 3, and 4; columns 6-7, file is translated from artificial language to*

        the target language)

but although Tolin teaches that the artificial language of the intermediate step may be numeric

(col. 3, lines 5-11) and that numbers may be attached to "words" for informational purposes *(col.*

9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57), Tolin does not teach the

steps of:

- converting the content included in the language stream
  expressed in the first language into a numeric
  representation of the content expressed in the first
  language; and

- converting the numeric representation of the corresponding
  content expressed in the second language into the
  corresponding content expressed in the second language.

However, the examiner contends that this concept was well known in the art, as taught by Unger.

  In a related field of endeavor, Unger teaches the conversion of textual information to a

numerical form *(col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27)* as well as

converting the numerical form to textual information suitable for display or printing *(col. 15,*

lines 60-66).

  Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the language translation method of Tolin with the text conversion

steps of Unger before and after the translation, to have one standardized method of encoding of

input words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

8.   With respect to **claim 2**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 1); in addition, Unger teaches the method of claim 1, wherein

the converting the content included in the language stream

expressed in the first language comprises converting one or more

terms in the language stream into a numeric value *(Fig. 2, col. 11, lines*

10-13, each word within the text from the original material is replaced with the number

corresponding to that word (210)) .

        It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the language translation method of Tolin with the text conversion steps of

Unger before and after the translation, to have one standardized method of encoding of input

words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

9.   With respect to **claim 3**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 2); in addition, Unger teaches the method of claim 2, further

comprising forming a numeric vector from a plurality of said

numeric values, each of said plurality of numeric values

corresponding to one or more converted terms in the language

stream *(col. 11, lines 10-13 and 19-24, words and numeric strings are converted to numbers;*

the tokenized data stream, which contains the compressed text information, is stored.) .

        It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the language translation method of Tolin with the text conversion steps of

Unger before and after the translation, to have one standardized method of encoding of input

words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

10.   With respect to **claim 4**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 1); in addition, Unger teaches the method of claim 1, wherein

the converting the content included in the language stream

expressed in the first language into a numeric representation of

the content expressed in the first language comprises forming a

list vector from the language stream expressed in the first

language *(col. 11, lines 10-13 and 19-24, words and numeric strings are converted to*

numbers; the tokenized data stream, which contains the compressed text information, is

stored.).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the language translation method of Tolin with the text conversion steps of

Unger before and after the translation, to have one standardized method of encoding of input

words for the translation system to use, because information from different sources may be

encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of

storage and transmission.

11.   With respect to **claim 5**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 1); in addition, Unger teaches the method of claim 1, wherein

the converting the content included in the language stream
expressed in the first language into a numeric representation of
the content expressed in the first language comprises forming a
numeric list vector from the language stream expressed in the
first language *(col. 11, lines 10-13 and 19-24, words and numeric strings are converted
to numbers; the tokenized data stream, which contains the compressed text information, is
stored.)*.

It would have been obvious to one of ordinary skill in the art at the time the invention
was made to modify the language translation method of Tolin with the text conversion steps of
Unger before and after the translation, to have one standardized method of encoding of input
words for the translation system to use, because information from different sources may be
encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of
storage and transmission.

12.   With respect to **claim 6**, Tolin in view of Unger teaches everything claimed, as applied
above (see claim 3); furthermore, Tolin teaches the method of claim 3, further
comprising building at least one MMX file associated with said
numeric vector *(Fig 2A, column 3, lines 12-34, column 6, lines 6-12, column 8, line 60-
column 9, line 5, column 19, line 60- column 20, line 13; sentences and terms in the intermediate
language are assigned indicators or tags which provide a complete grammatical and lexical
analysis of a word in the context of the sentence)*. While the information about the words and
the relationships between the words are not explicitly in the form of an "MMX file", it is clear
that the stored information is functionally equivalent.

13.   With respect to **claim 7**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 4); furthermore, Tolin teaches `the method of claim 4, further`

`comprising building at least one MMX file associated with said`

`list vector` *(Fig 2A, column 3, lines 12-34, column 6, lines 6-12, column 8, line 60-column*

9, line 5, column 19, line 60- column 20, line 13; sentences and terms in the intermediate

language are assigned indicators or tags which provide a complete grammatical and lexical

analysis of a word in the context of the sentence) . While the information about the words and

the relationships between the words are not explicitly in the form of an "MMX file", it is clear

that the stored information is functionally equivalent.

14.   With respect to **claim 8**, Tolin in view of Unger teaches everything claimed, as applied

above (see claim 5); furthermore, Tolin teaches the method of claim 5, further comprising

building at least one MMX file associated with said numeric list vector *(Fig 2A, column 3, lines*

12-34, column 6, lines 6-12, column 8, line 60-column 9, line 5, column 19, line 60- column 20,

line 13; sentences and terms in the intermediate language are assigned indicators or tags which

provide a complete grammatical and lexical analysis of a word in the context of the sentence).

While the information about the words and the relationships between the words are not explicitly

in the form of an "MMX file", it is clear that the stored information is functionally equivalent.

15.   With respect to independent **claim 9**, Tolin teaches `a method for translating`

`an object in a first language space to the object in a second`

`language comprising:`

- transforming the numeric representation of the object in the
  first language to the object in a language agnostic space
  (Figs. 1, 3, and 4; columns 5-6, file is translated from original language to artificial
  language); and

- transforming the object in the language agnostic space to a
  numeric representation of the object in the second language
  space *(Figs. 1, 3, and 4; columns 6-7, file is translated from artificial language to the*
  target language)

but although Tolin teaches that the artificial language of the intermediate step may be numeric
(col. 3, lines 5-11) and that numbers may be attached to "words" for informational purposes *(col.*
9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57), Tolin does not teach the
steps of:

- converting the object in the first language space into a
  numeric representation of the object expressed in the first
  language; and

- converting the numeric representation of the object in the
  second language space into the object in the second
  language.

However, the examiner contends that this concept was well known in the art, as taught by Unger.

   In a related field of endeavor, Unger teaches the conversion of textual information to a
numerical form *(col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27)* as well as
converting the numerical form to textual information suitable for display or printing *(col. 15,*
lines 60-66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before and after the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of storage and transmission.

16.   With respect to independent **claim 10**, Tolin teaches a `method for managing content comprising:`

- `transforming the object in the first language space to the object in a language agnostic space` *(Figs. 1, 3, and 4; col. 5-6, file is translated from original language to artificial language)*`; and`

- `manipulating the object in the language agnostic space` *(col. 6, 11-14; the data are simplified by changing to a vocabulary of fewer words by stripping morphology)*`.`

but although Tolin teaches that the artificial language of the intermediate step may be numeric *(col. 3, lines 5-11)* and that numbers may be attached to "words" for informational purposes *(col. 9, lines 29-30; col. 12, Table 1; col. 15, Table 3; col. 20, lines 54-57)*, Tolin does not teach the step of:

- `converting an object in a first language space into a numeric representation of the object in the first language space.`

However, the examiner contends that this concept was well known in the art, as taught by Unger.

In a related field of endeavor, Unger teaches the conversion of textual information to a numerical form *(col. 2, lines 40-53; col. 9, lines 5-14; Fig. 2, col. 11, lines 2-27)*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the language translation method of Tolin with the text conversion steps of Unger before the translation, to have one standardized method of encoding of input words for the translation system to use, because information from different sources may be encoded differently *(Unger, col. 1, lines 47-54)* and in order to compress the data for ease of storage and transmission.

17.   With respect to **claim 11**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 10); furthermore, Tolin teaches the method of claim 10, further comprising:

- transforming the manipulated object in the language agnostic space to a numeric representation of the manipulated object in the first language space *(Fig. 2, col. 19, lines 36-49; each language has both a source module as well as a target module)*.

Each target module can be used with any source module, as they are all are accepted by the intermediate module. Therefore, data may be transformed back to the original language after passing through the intermediate step.

18.   With respect to **claim 12**, Tolin in view of Unger teaches everything claimed, as applied above (see claim 10); furthermore, Tolin teaches the method of claim 10, further comprising:

- transforming the manipulated object in the language agnostic space to a numeric representation of the manipulated object in a second language space *(Figs. 1, 3, and 4; columns 6-7, file is translated from artificial language to the target language)*.

Conclusion

19.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Murray (US 2005/0251383), Call (US 2002/0165707), Anglea et al. (US 5,680,627),

Bertolus et al. (US 2002/0022953), Chai et al. (US 2005/0080612), and Datig (US 6,233,546)

teach methods for the numeric encoding of text, character, or symbols.

20.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

21.   A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

22.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to GINA W. LEE whose telephone number is (571)270-3139. The

examiner can normally be reached on Monday to Friday, 8:00 AM - 5:00 PM EST.

23.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

24.   Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                                        Patrick Edouard
                                                        Examiner
                                                        Art Unit 2626

GWL
/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2626